

Flow Directing Device

Abstract of Disclosure

A flow directing device of a gas turbine engine, comprising: an airfoil having a leading edge, trailing edge, suction side and pressure side; a wall abutting the airfoil; and a fillet between the airfoil and wall. The fillet has an enlarged section at the leading edge, along the suction and pressure sides, and towards the trailing edge. The device could be part of a vane segment. In addition to eliminating a horseshoe vortex, the device also reduces heat load on the airfoil by directing the cooler gas from the proximal end of the airfoil to the hotter gas at the medial section of the airfoil.